



TRAINING MODULE

O & M OF COMMUNITY TOILETS &

FEACAL SLUDGE MANAGEMENT

June, 2019

O & M OF COMMUNITY TOILETS & FEACAL SLUDGE MANAGEMENT

TRAINING MODULE

This training module has been developed for UNICEF in association with CORA under their Urban Initiatives. Purpose of this module is to build capacities of stakeholders in the Mumbai Municipal Corporation for effective O & M of Community toilets and faecal sludge management.

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(Contents of this manual may be used with due credit/s)

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OBJECTIVES

1. Build capacities of functionaries involved in:
 - a) Management of community sanitation facilities
2. Orientation on:
 - a) Faecal sludge management

LEARNING OBJECTIVES

Inculcate knowledge among the target participants about various aspects related to:

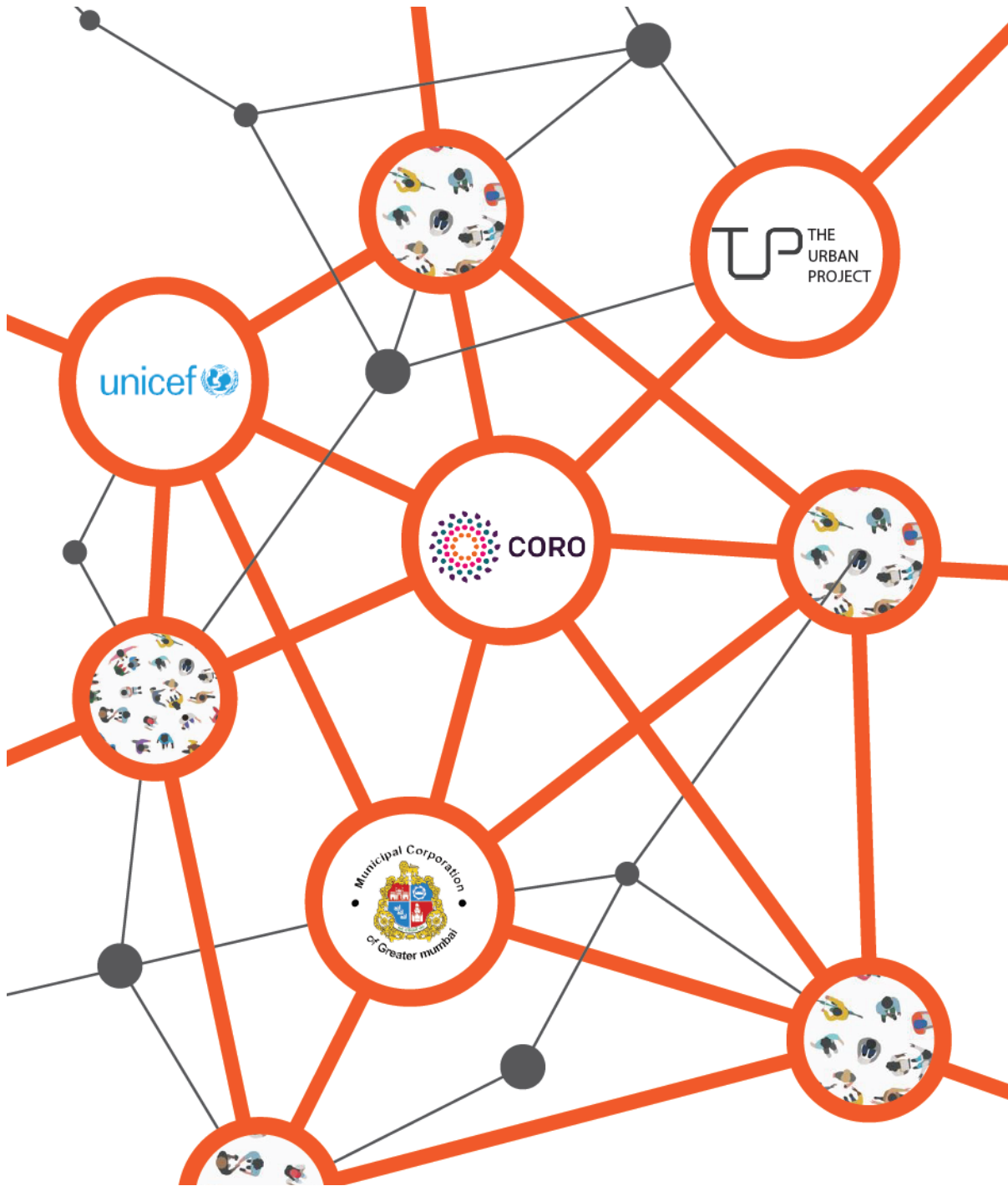
- Operation & Maintenance of community toilets
- faecal sludge Management

TRAINING SCHEDULE

Time	Topic
09.30	Registration
10.00	Opening remarks, Inauguration
10.15	Management of Community Toilets – Presentation Management of Community Toilets – Action Learning
13.00	Lunch
14.00	Faecal Sludge Management– Presentation Faecal Sludge Management– Action Learning
16.45	Development of Road map
17.15	Closing Remarks End of the sessions



PARTNERS



INTRODUCTION TO THE TRAINING COURSE

The training focuses on developing capacities of all the stakeholders including operators, service providers, Municipal Corporation, elected representatives etc

This training aims at conveying the key concepts and how to do the operation and maintenance of community toilets and management of faecal sludge in an effective manner, what are the basic non-negotiable elements versus what are the preferred elements. The training elements are based on realistic and practical approaches.

The **methodology** of the trainings focuses on practice-oriented and interactive learning. The method is broadly based Harvard Case Method, which conveys teaching messages mainly through interactive practical, moderated by trainers and work (interaction/ discussion/ deliberation) is mainly done by the trainees. The training is facilitated by trainers, and is offered to about 30 trainees.

Modules follow the following sequences

- An introductory lecture given by the trainer provides the necessary theoretical background and introduces participants to their task in the case work/activity.
- The case work/exercise gives participants the opportunity to work in groups through the different aspects linked to community toilet
- The wrap-up discussion is the space to reflect on what has been learned, to share experiences and for mutual learning.
- Trainers guide through questions and consequently offer alternatives and corrections where necessary. In a final reflection, the participants reassume their own real-life position to link the gained findings into their own experience.

Main **target group** of the training are operators of the facility, the officials of the municipal corporation responsible for service provision.

The entire course is designed for a timeframe of at least one day and can be extended to two days converting O & M aspect on day 1 and FSM on day 2.

The training has been designed in such a way that the real case examples, potentially presented by the practitioners from the respective area of training application are adequately discussed.

To support the learning activities, a different set of training material has been developed:

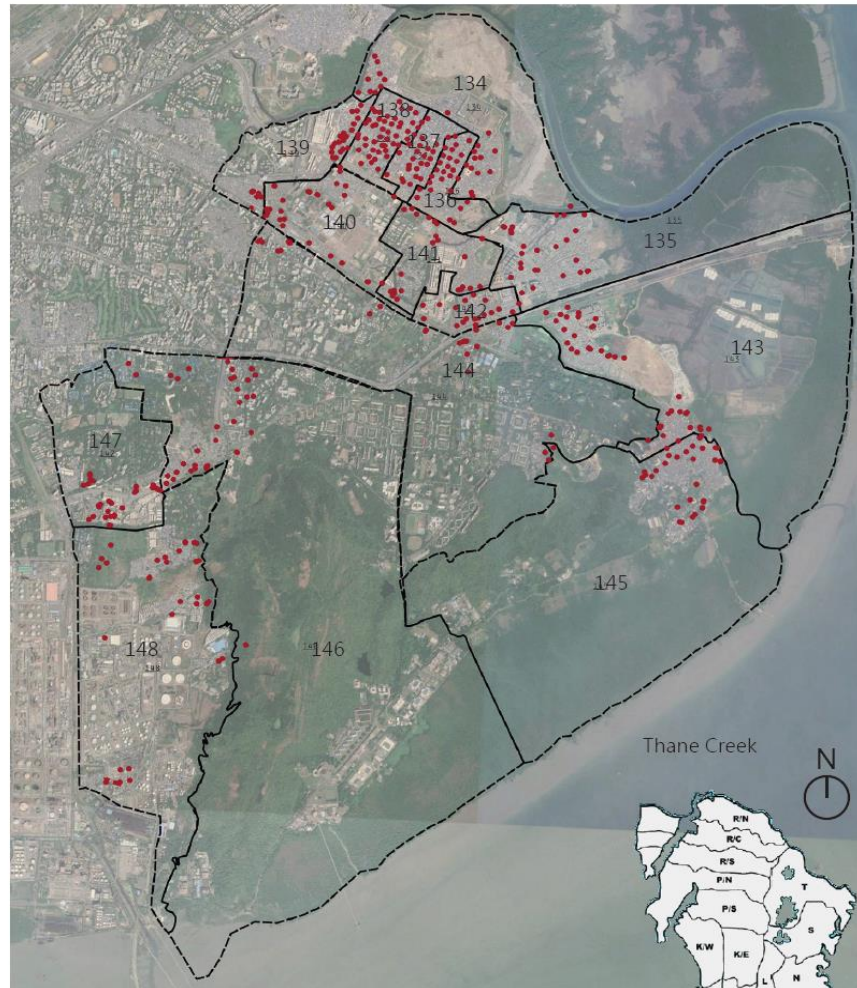
- A Power Point slides (to be presented by the trainer) to supports the introductory input for each module.
- Ideally a hand out the slides is used by participants for better understanding and also during group work. This also contains the instructions and necessary information for the group-work and exercises.

Logistic arrangement and training material required for conducting a training is given in Annexure 1.

TARGET GEOGRAPHIES:

M east ward of the Mumbai Municipal Corporation

— M- EAST WARD OF MCGM



LEGEND

- Community Toilet (Total 449)
- — Ward Boundary

Map not to scale
Base Image: Google Maps



(Source: CORO)

KEY CONTENTS OF THE TRAINING MODULES

MODULE 1: OPERATIONS AND MAINTENANCE OF COMMUNITY TOILETS

Power point presentation – overall orientation on operations and maintenance of community toilets

(Refer Annexure 2)

This module deals with various issues and aspects related to Operations and maintenance of Community Toilets.

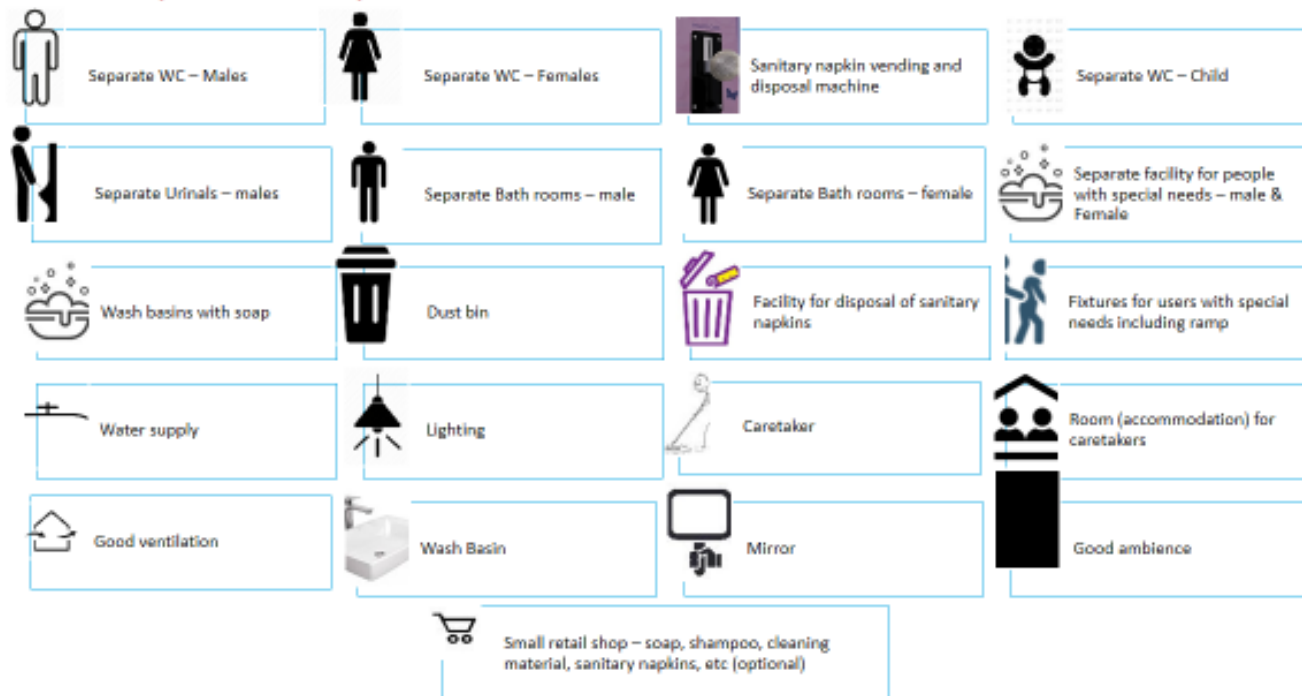
- ✓ Sbm-urban components
- ✓ Definition
- ✓ Operations and maintenance of community toilets – basics
- ✓ Community toilets - components / elements
- ✓ Gender friendly toilets
- ✓ Norms for community toilet
- ✓ Common problems with community toilets
- ✓ Operators and type of management
- ✓ O & M of community toilet: how to improve usability & ensure sustainability (1)
- ✓ Standard operating processes
 - Operation vs maintenance - daily cleaning and maintenance of physical infrastructure
 - Equipment and supplies required
 - Indicative requirement of staff & visits
 - Cleaning frequency and process
 - Maintenance
 - Cost
 - Display at entrance

Action learning 1: Discussion and interaction Non-negotiable elements of a model community toilet

- What are the Non-negotiable features/ elements of a model community toilet

Discussion should be held with participants and presentation slide may be kept in the background to support the discussion and facilitation. Trainers should write the possible elements as suggested by the participants on white board marker and then categorise them as a) elements that are non-negotiable for any community toilets and b) preferred elements (negotiable)

Community Toilets - Components / elements



Action learning 2: Instructions for Action learning (O & M of Community toilets)

The analysis of success factors for community toilet based on a common field experience and knowledge is facilitated by trainer based on the finding from the group work. Discussion should be carried out using the following questions in 4 -5 sub-groups, with each group having 6-8 members.

- What are the key issues and challenges
- How would you resolve these challenges
- What support would you need

Organize your work following the instructions by the trainer and document your findings in **Matrix 1**.

Key issues and challenges	How to resolve	What support is needed

MODULE 2: FEACAL SLUDGE MANAGEMENT

Power point presentation – overall orientation on Faecal Sludge Management

(Refer Annexure 3)

This module deals with various issues and aspects related to Faecal Sludge management including the following

- ✓ What is On- site Sanitation
- ✓ What is Faecal sludge
- ✓ Faecal sludge Management – The System
- ✓ Septic tank as a treatment system
- ✓ Recommended size of septic tank
- ✓ Desludging operations for on-site sanitation systems
- ✓ Improved septic tank – baffled reactor
- ✓ Faecal sludge Management – Challenges
- ✓ Faecal sludge treatment plants for on-site sanitation systems – O & M
- ✓ De-sludging operations for on-site sanitation systems
- ✓ Complete treatment Process
- ✓ Options for fecal Sludge management – Mumbai context
- ✓ RECORD KEEPING
- ✓ HEALTH AND SAFETY
- ✓ ADMINISTRATIVE MANAGEMENT

Action learning 3:

Instructions for Action learning for O & M of Community Toilets: Group discussion

- Key Challenges you face (Stakeholder wise)
- Possible solutions
- Support needed

Organize your work following the instructions by the trainer and document your findings in **Matrix 2**.

Key issues and challenges	Posseble Solutions	Support needed

All the action learning work are followed by deep discussion and key learning takes place during the group work, presentation and moderated discussion.

The issue and challenges

The challenges in operation and maintenance of community toilets and excreta disposal and the entire faecal sludge management are multi-fold. The slums in Mumbai in general and M East ward in particular have a number of challenges when it comes to service provision of even the most basic facilities such as sanitation. They are grasped by number of challenges including – locational issues, access, population density, land tenure issues, legal aspects and behaviour of the community are some of the critical challenges.

Common Problems with the Community toilets include:

- ❖ Behavioral issues
- ❖ Safety & Security
- ❖ Poor access
- ❖ Open urination
- ❖ Hygiene and cleanliness
- ❖ Gender issues
- ❖ Women friendliness (Sanitary napkin vending/disposal machine)
- ❖ Too crowded or no users
- ❖ Inadequate no. of toilets / seats
- ❖ Poorly maintained
- ❖ Inappropriate location
- ❖ Types of toilets – males vs females
- ❖ Inadequate provisions within each facility
- ❖ Lack of facilities for Senior Citizens/ Pregnant women
- ❖ Power supply at night
- ❖ Lack of water supply
- ❖ Design problem – unsafe disposal of excreta

Common problems with the Faecal sludge Management include

- ❖ Can impact both Water Supply and Sanitation
- ❖ Low awareness about need and importance of emptying on site systems periodically
- ❖ Manual handling during different stages of the system – violating laws
- ❖ Low technological advancement or penetration
- ❖ Operational challenges – narrow/ difficult to reach lanes
- ❖ Responsibilities not clear
- ❖ Considered as low dignity job, even specific to a particular community
- ❖ No exclusive FSTPs
- ❖ Limited knowledge
- ❖ Role of the toilet operators is not clear
- ❖ Scheduled desludging services not implemented
- ❖ Difficult to implement the scheduled desludging services
- ❖ Locational issues
- ❖ Inadequate infrastructure

Need for effective Operation and maintenance

The operation and maintenance is often not well understood well by the operators as well as service providers leading to weak facilities. Definition is as given below:

Operation

- ❖ general day-to-day functions of cleaning of toilet seats, urinals, floor, walls, doors, windows, sanitary fixtures and rest of the interior and exterior of the toilet block

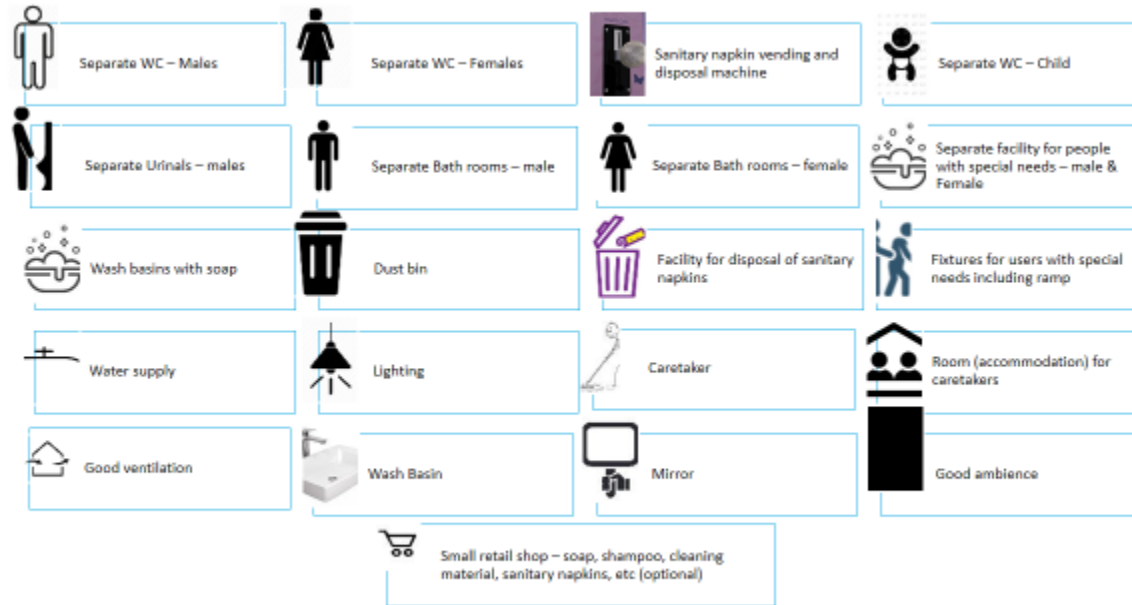
Maintenance

- ❖ repair (and replacement) of infrastructure
- ❖ building (civil construction)
- ❖ Plumbing

- ❖ sanitary and electrical fixtures
- ❖ other repairs as required

Key elements of a community sanitation facility include the following:

Community Toilets - Components / elements



Some components are mandatory and some are negotiable depending in need and demands. Operators may consult with the target users/ community and then decide the list of elements.

Sources of income and possible expenses also depends on number of factors including the facilities provided. Operators needs to work out all the possible sources and income and expenses and then negotiate with the BMC for the possible additional support.

Sources: Income and Expenditure

Income sources	Expenditure
<ul style="list-style-type: none"> ◦ Usage fees <ul style="list-style-type: none"> ◦ Per usage ◦ Monthly per member fee ◦ Monthly family fee – pass ◦ Charges for washing cloths ◦ Nominal charges for urination – market users ◦ Sale of products ◦ Support from Municipal Authority or other support agencies including NULM, CSR, etc ◦ Income from Advt ◦ Small retail shop – soap, shampoo, cleaning material, sanitary napkins, etc 	<ul style="list-style-type: none"> ◦ Salaries <ul style="list-style-type: none"> ◦ Caretaker ◦ Cleaner ◦ Record keeper/ Financial management ◦ Other expenses <ul style="list-style-type: none"> ◦ Electricity ◦ Water ◦ Consumables – cleaners ◦ Plumbing ◦ Breakage & repairs ◦ Emptying of septic tanks ◦ Paintings and decorations ◦ Any others municipal charges

As a policy matter BMC may take a call and facilitate and even take a responsibility of provision of electricity, water and services such as emptying of septic tanks or periodic basis. BMC also need to facilitate support from other line departments such as police to resolve conflicting issues and tackle the menace of anti-social elements.

O & M of Community Toilet

How to improve usability & ensure sustainability (1)

- Well maintained and clean
- Good ambience
- Keep open to maximize usage and user preferences
- Ensure timely collection of user fee
- small retail shop – soap, shampoo, cleaning material, sanitary napkins, etc
- Caretaker, cleaner, Supervisor
- Defined responsibilities for staff



O & M of Community Toilet

How to improve usability & ensure sustainability (2)

- Support from BMC - water, electricity, FSM services, major repair (explore)
- Mobilize financing sources including CSR/ NULM/ others
- User feedback for improvements
- Record keeping
- Scheduling of tasks and activities
- Contract with BMC with a shared responsibility
- Monitoring mechanism
- Community awareness programme
- Maintain inventory



Equipment's and material supplies required for maintaining the facility include safety gears, cleaning agents, other consumables and equipment's include the following. This list has to be updated separately for each facility depending in needs and available finances.

Equipment and supplies required

Standard operating processes

Safety gear	Cleaning equipment	Consumables	Other equipment
<ul style="list-style-type: none"> • Rubber Gloves • Face mask • Gum Boots • Uniform/ Apron • Safety goggle • Safety helmets • Safety light 	<ul style="list-style-type: none"> • Brush for cleaning toilet seats/ bowls • Plastic scrubber /brush for cleaning wash basins • Brush/ scouring paper for cleaning tiles • Brooms for wet areas • Brooms for dry areas • Cloths/ mops for cleaning floor • Floor Wipers • Plastic scrubber/ sponge/ cloths for scrubbing plumbing fixtures and other purposes • Bucket for mixing floor cleaning agent with water • Mug for pouring floor cleaning agent mix • Sponges/ soft cloth for cleaning mirrors • Dust collecting pan • Dustbins 	<ul style="list-style-type: none"> • Liquid sanitary ware cleaning agent • Liquid/ powdered tiles cleaning agent • Liquid/ powdered floor cleaning agent • Liquids/ powdered plumbing fixtures cleaning agent • Soap/ non-abrasive cleaning liquid/ powder (non-acidic) • Disposable garbage bags • Hand washing soap • Naphthalene balls • Baking soda • Glass & mirror cleaning liquid 	<ul style="list-style-type: none"> • Sign Boards/ Warning Signs • Trolley/ tray for carrying cleaning equipment • Room freshener • Plumber's snakes • Plunger • Ladder

Maintenance that is required on periodic basis may include:

- ❖ Leakages and/ or broken water supply plumbing and fixtures

- ❖ Choked sewerage pipes and filled septic tanks/ pits
- ❖ Civil repairs to the building
- ❖ Failure of electrical fixtures
- ❖ Clearing access to the facility
- ❖ Repair and maintenance of broken door
- ❖ Any other

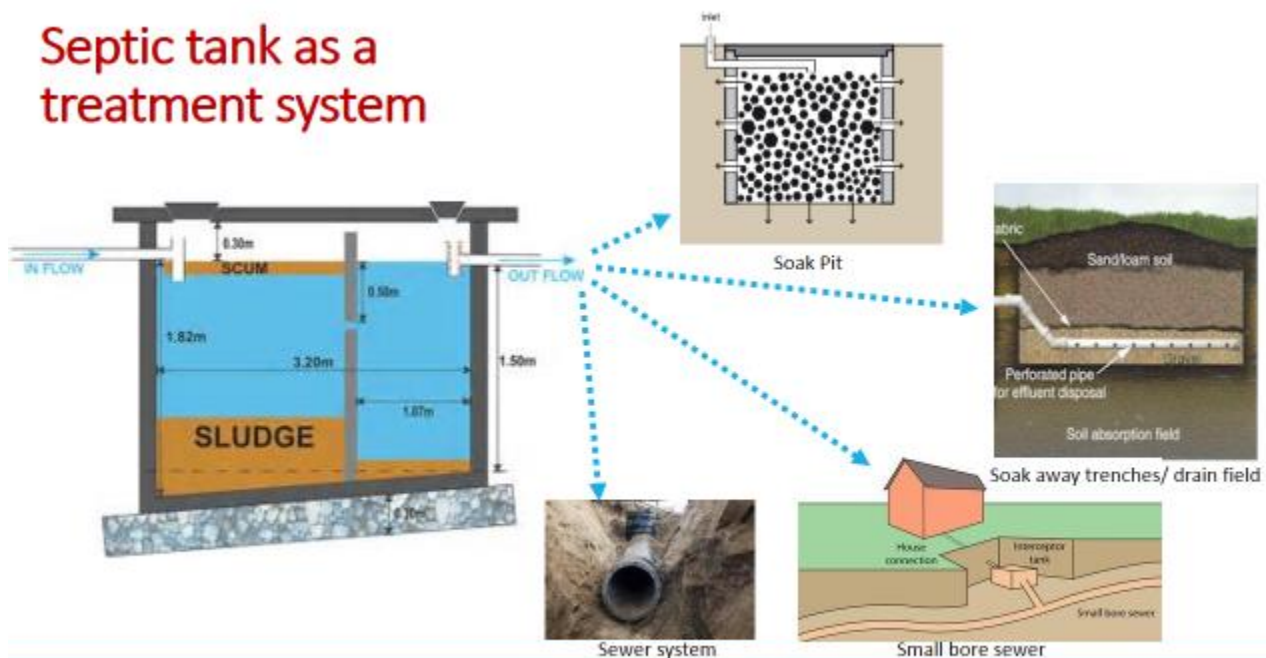
BMC may support the operators where expenses are high and beyond the capacity of the operator. Contracting should ensure that responsibilities of both parties are clearly defined.

Feecal sludge Management – The System

- ❖ Faecal sludge - all liquid and semi-liquid contents of pit/ septic tanks accumulating in on-site sanitations installations
- ❖ unsewered public and private toilets with pits and septic tanks
- ❖ These liquids are several times more concentrated in suspended and dissolved solids than wastewater

Septic tanks should be connected to any one of the four options such as soak pit, soak away trenches, small bore sewer or sewer. In the slums of Mumbai, septic tanks may be connected to small bore sewer which may then be extended till the sewer lines.

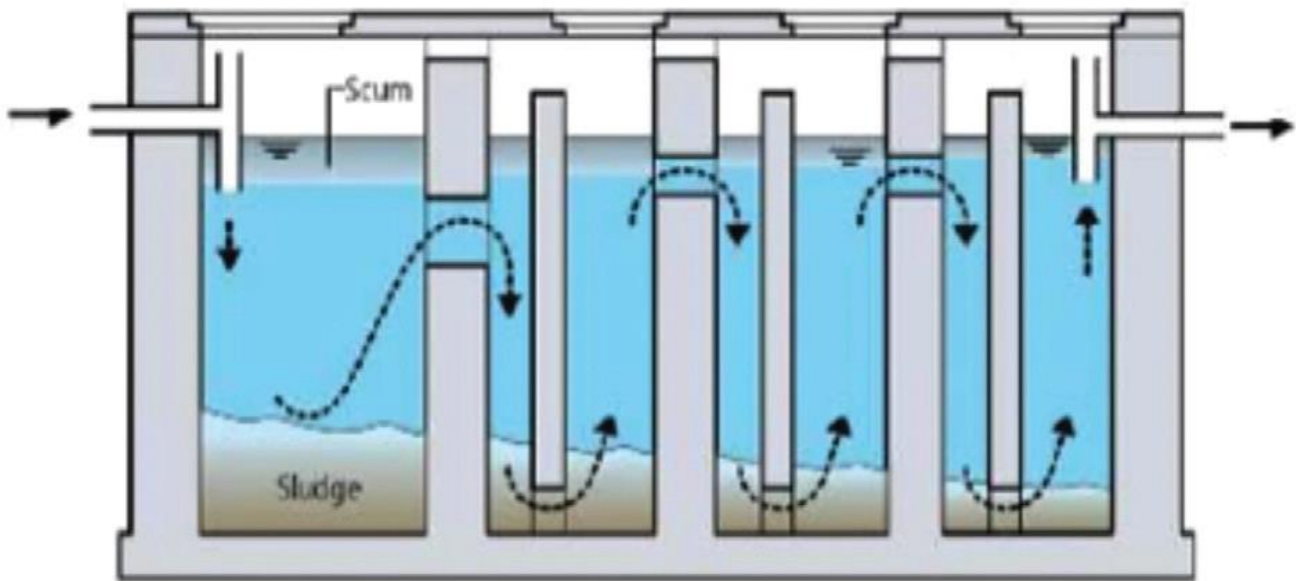
Septic tank as a treatment system



Recommended size of septic tanks and cleaning intervals in ideal conditions is given below.

No. of users	Length (m)	Breadth (m)	Liquid depth in m (Cleaning interval of septic tanks)	
			2 years	3 years
50	5.0	2.00	1.00	1.24
100	7.5	2.65	1.00	1.24
150	10.0	3.00	1.00	1.24
200	12.0	3.30	1.00	1.24
300	15.0	4.00	1.00	1.24

The modified septic tanks (baffled reactor) with safe disposal of effluent may be encouraged to ensure effective treatment and achieve higher efficiency.



RECORD KEEPING is an important element to ensure proper operation and maintenance. Some of the essential records include:

- The operators log book
- Treatment unit operating data sheet
- Records related to FS deliveries to the plant
- Disaster response and emergency recovery records

- Preventative and corrective maintenance records including equipment maintenance log books
- Compliance reports including field and analytical data, and correspondence from regulatory officials
- Employee records, such as employee schedules, time sheets and injury reports

Road map development

Road map is developed individually by each participant to ensure that the learnings and lessons learned during the training. A plan A4 sheet is given to each participant and they are asked to write the following

- What 3 action would you take to improve the existing problems
- How would you do it

The sheet is then collected and sent / given to the participants after a period of one month as a reminder to their commitments made to themselves.

FREQUENTLY ASKED QUESTIONS (FAQS)

What is the fundamental difference between the Community Toilets and the Public Toilets?

Community toilets (CT) is a shared facility provided for a defined group of residents or an entire settlement / community/ slum/ poverty pocket. It is normally located in or near the slum/ community area and used by almost all community members, whereas the public toilets (PT) facility are provided for the floating population / general public in areas such as markets, train stations or other public areas and used by mostly undefined users.

How different is the user pattern in these toilets?

Pattern of use of a CT slightly differs with that of PT. In CTs, most users use toilets between 5AM to 10AM. During noon, women use toilets and for washing clothes and usage decreases in the evening and night. Users are almost same on daily basis. In case of PTs, use pattern vary considerably depending on the location of such toilets. A PT located at railway station is used almost throughout the day till late evening. Likewise, such toilets located at interstate busy bus terminals operate all 24 hours. Whereas a PT located in a park / zoo, operates during the official time of operation of such institutions.

What facilities are crucial for community toilets?

For community toilet crucial and optional element include the following:

Separate WC for and Males and Females, Sanitary napkin vending and disposal machine in women section, Child friendly toilet, Separate Urinals for males, Separate Bath rooms for male and female, Separate facility for people with special needs – male & Female, Wash basins with soap, Dust bin, Water supply, ventilation, Lighting/ electricity, Caretaker, Room (accommodation) for caretakers, Mirror, Good ambience and cleanliness. Additional facilities such as Small retail shop which can supply soap, shampoo, cleaning material, sanitary napkins, etc

How can the community toilet be made Gender friendly?

It should have:

- Child friendly facility

- Facility for disposal of sanitary napkins
- It should be easily accessible
- It should be safe and secure for women to use during anytime of the day
- It should have privacy
- Maintained properly
- Basic facilities such as water, electricity, hand washing facility
- Bathroom and washing areas where needed

What are the NORMS FOR COMMUNITY TOILETS

- One seat for 35 men
- One seat for 25 men
- One bath unit per 50 users
- One urinal unit per 200 – 300 users
- Cloth washing area: 4 to 5 sq. meters per 10 toilet seats; Min. 1.5 m x 1.2 m

What is the difference between Operation and maintenance?

- Operation is a general day-to-day functions of cleaning of toilet seats, urinals, floor, walls, doors, windows, sanitary fixtures and rest of the interior and exterior of the toilet block
- Maintenance is repair (and replacement) of infrastructure, building (civil construction), plumbing, sanitary and electrical fixtures, other repairs as required mostly on periodic basis

What is Faecal sludge management (FSM)

All liquid and semi-liquid contents of pit/ septic tanks accumulating in on-site sanitation installations need to be emptied on periodic basis, treated and disposed in scientific manner so that such onsite facilities can function efficiently. The process of emptying, transport, treatment and disposal of faecal sludge is called as FSM

Can sanitary napkins and other solid waste material such as liquor bottles, condoms, paper be disposed in septic tank.

No

What to do in case of non-supportive individuals and anti-social elements

Work on chaining their behavior and continuously engage with police on such matters. Use community pressure

What to do if users don't pay user fee

Convince them, change mind set, and restrict their entry. Use community pressure

What to do if operators don't get support from BMC

Keep the terms and condition in the contract well defined and clear with clear roles, responsibilities. Discuss with the official and sort the matter

ANNEXURE 1: LOGISTICS AND LIST OF MATERIAL FOR TRAINING

S N	Materials	Quantity	Remarks
Training facility			
1.	Comfortable training room spacious enough for up to 30-35 participants - 35-40 Chairs in U-Shape - no tables - 5 smaller working tables	1	Spacious enough for group works / action learning exercises
2.	Banner	2	One inside (backdrop) one outside
3.	Rose flower (if welcome is proposed)	Single – one per guest	No bouquet
4.	Registration sheet	1	
5.	Projector	1	
6.	Sound system	1	
7.	Slide changer / beamer	1	1
8.	Cordless mike	1	
9.	Food arrangements		Strictly no use of disposables
10.	Drinking Water arrangements		Strictly no use of disposables – keep water container and glasses in a corner
Training material			
11.	Brown paper	30 pc	(A 0 size brown sheets)
12.	Marker pen in 4 colors	4 box	Think ones
13.	Pin-boards or substitutes	2	
14.	Meta plan cards	150-200	
15.	Tape single sided	5	5 number
16.	Tape both sided	one bundle - 5 piece	5 number
17.	Flipcharts	1 pc	
18.	Scissor	1	

19.	Pencil	1 set	
20.	Stapler	2	2
21.	Flipchart stands	1	
22.	'Blue Tack' (sticker gum)	4	
23.	Pins for soft board	2 box	
24.	Plain A4 size print papers	50 sheets	
Kit for participants (optional)			
25.	Note pad + pen for participants	50	
26.	Name tags/badges	1 per participant	Names printed in big letters. Preferably hand made
27.	Slides print out/ training material	1 per participant	
28.	Certificates	1 per participant	If planning to certify

ANNEXURE 2: DETAILED MODULE- O & M OF COMMUNITY TOILETS



एक कदम स्वच्छता की ओर



Orientation on

Operations and maintenance of Community Toilets Faecal Sludge Management

Improving efficiency of sanitation intervention in poverty pockets of Mumbai



This training module has been developed by the UNICEF in association with CORA under the Urban Initiatives, for building capacities of stakeholders in Mumbai Municipal Corporation, for effective faecal sludge management.

June, 2019

Author: Pramod Dabrase, Senior Sanitation Expert

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(Contents of this manual may be used with due credits)

OBJECTIVE

1. Build capacities of functionaries involved in:
 - ✓ Management of community sanitation facilities
2. Orientation on:
 - ✓ Faecal sludge management

Learning objectives

Inculcate knowledge among the target participants about various aspects related to:

- Operation & Maintenance of community toilets
- faecal sludge Management



SBM-URBAN COMPONENTS





Operations and maintenance of Community Toilets

How to make it effective

Definition

- ✓ Shared facilities for a group of residents or entire settlement
- ✓ Primarily in low-income and/or informal settlements / slums, where space are constraints in providing individual household toilet or other similar issues
- ✓ More or less a fixed user group



Operations and maintenance of Community Toilets – Basics

Target users

- ✓ Members of households without individual toilets
- ✓ Shop keepers
- ✓ Bypassers/Migrants

Purpose / use for

- ✓ Defecation
- ✓ Urination
- ✓ Bathing
- ✓ Cloth washing

O & M of Community Toilets - Components / elements



Gender friendly toilets



NORMS FOR COMMUNITY TOILET

Toilet seat	Bath Unit	Urinal Unit	Cloth washing area
One seat for 35 men	One unit per 50 users	One unit per 200 – 300 users	4 to 5 sq. meters per 10 toilet seats; Min. 1.5 m x 1.2 m
One seat for 25 women			

(Source: Guidelines on Swachh Bharat Mission-Urban, GoI, 2014)

Common Problems with Community toilets

- ❖ Behavioral issues
- ❖ Safety & Security
- ❖ Poor access
- ❖ Open urination
- ❖ Hygiene and cleanliness
- ❖ Gender issues
- ❖ Women friendliness (Sanitary napkin vending/disposal machine)
- ❖ Too crowded or no users
- ❖ Inadequate no. of toilets / seats
- ❖ Poorly maintained
- ❖ Inappropriate location
- ❖ Types of toilets – males vs females
- ❖ Inadequate provisions within each facility
- ❖ Lack of facilities for Senior Citizens/ Pregnant women
- ❖ Power supply at night
- ❖ Lack of water supply
- ❖ Design problem – unsafe disposal of excreta







Operators and type of Management

- ✓ CBOs – SHGs, local youths/ agency
- ✓ Sulabh
- ✓ Mhada
- ✓ MCGM
- ✓ MSDP



Sources: Income and Expenditure

Income sources

- Usage fees
 - Per usage
 - Monthly per member fee
 - Monthly family fee – pass
- Charges for washing cloths
- Nominal charges for urination – market users
- Sale of products
- Support from Municipal Authority or other support agencies including NULM, CSR, etc
- Income from Advt
- Small retail shop – soap, shampoo, cleaning material, sanitary napkins, etc

Expenditure

- Salaries
 - Caretaker
 - Cleaner
 - Record keeper/ Financial management
- Other expenses
 - Electricity
 - Water
 - Consumables – cleaners
 - Plumbing
 - Breakage & repairs
 - Emptying of septic tanks
 - Paintings and decorations
 - Any others municipal charges



O & M of Community Toilet

How to improve usability & ensure sustainability (1)

- Well maintained and clean
- Good ambience
- Keep open to maximize usage and user preferences
- Ensure timely collection of user fee
- small retail shop – soap, shampoo, cleaning material, sanitary napkins, etc
- Caretaker, cleaner, Supervisor
- Defined responsibilities for staff



O & M of Community Toilet

How to improve usability & ensure sustainability (2)

- Support from BMC - water, electricity, FSM services, major repair (explore)
- Mobilize financing sources including CSR/ NULM/ others
- User feedback for improvements
- Record keeping
- Scheduling of tasks and activities
- Contract with BMC with a shared responsibility
- Monitoring mechanism
- Community awareness programme
- Maintain inventory



Standard operating processes

- ❖ Step-by-step procedure for cleaning and maintaining the facilities
 - ✓ Either by the ULB or
 - ✓ through private operators or SHGs
 - ✓ Other agency (specify)

Standard operating processes

Operation Vs Maintenance - daily cleaning and maintenance of physical infrastructure

Operation

- ❖ general day-to-day functions of cleaning of toilet seats, urinals, floor, walls, doors, windows, sanitary fixtures and rest of the interior and exterior of the toilet block

Maintenance

- ❖ repair (and replacement) of infrastructure
- ❖ building (civil construction)
- ❖ Plumbing
- ❖ sanitary and electrical fixtures
- ❖ other repairs as required

Equipment and supplies required

Standard operating processes



Safety gear

- Rubber Gloves
- Face mask
- Gum Boots
- Uniform/ Apron
- Safety goggle
- Safety helmets
- Safety light



Cleaning equipment

- Brush for cleaning toilet seats/ bowls
- Plastic scrubber /brush for cleaning wash basins
- Brush/ scouring paper for cleaning tiles
- Brooms for wet areas
- Brooms for dry areas
- Cloths/ mops for cleaning floor
- Floor Wipers
- Plastic scrubber/ sponge/ cloths for scrubbing plumbing fixtures and other purposes
- Bucket for mixing floor cleaning agent with water
- Mug for pouring floor cleaning agent mix
- Sponges/ soft cloth for cleaning mirrors
- Dust collecting pan
- Dustbins



Consumables

- Liquid sanitary ware cleaning agent
- Liquid/ powdered tiles cleaning agent
- Liquid/ powdered floor cleaning agent
- Liquids/ powdered plumbing fixtures cleaning agent
- Soap/ non-abrasive cleaning liquid/ powder (non-acidic)
- Disposable garbage bags
- Hand washing soap
- Naphthalene balls
- Baking soda
- Glass & mirror cleaning liquid



Other equipment

- Sign Boards/ Warning Signs
- Trolley/ tray for carrying cleaning equipment
- Room freshener
- Plumber's snakes
- Plunger
- Ladder

Indicative requirement of staff & visits


Staff	05.00am – 11.00am	11am-05pm	05.00pm-11pm	11.00pm - 05.00am
Cleaner	✓ (2)	✓	✓ (1)	X
Caretaker	✓	✓	✓	✓
Supervisor	✓(2)	✓(1)	✓(2)	X

Standard operating processes

Cleaning frequency and process

Key Areas Cleaning	Frequency of cleaning
Bathing areas	Twice a day – or whenever it required
Water-closet cubicles and urinals	3 times a day – or whenever it required
Common areas of the facility	3 times a day – or whenever it required
Wash basins	3 times a day – or whenever it required
Electrical fixtures	Once a month – minimum or whenever it required
Plumbing fixtures	Once a day – minimum or whenever it required
Painted walls	Once a month – minimum or whenever it required

Maintenance


- ❖ Leakages and/ or broken water supply plumbing and fixtures
 - ❖ Choked sewerage pipes and filled septic tanks/ pits
 - ❖ Civil repairs to the building
 - ❖ Failure of electrical fixtures
 - ❖ Clearing access to the facility
 - ❖ Repair and maintenance of broken door
 - ❖ Any other
- 

Cost

Tentative basic cost for CT

- WC = Rs. 98,000/- per seat
- Urinal : Rs. 32,000/- per seat

40% VGF from Gol, State assistance will be atleast 1/3 of Gol's assistance



Display at entrance

SWACHH PUBLIC TOILET 

ABC Municipal Corporation

TOILET ID: ABC/012/PTB/023

WARD #: 012

MAINTAINED BY: DEF Toilet Organization Pvt Ltd

TIMINGS: 8:00 AM - 10:30 PM

PUBLIC TOILET

Facilities: Men Women Child Friendly Third Gender Differently Abled Lovers

Supervisor Name: Sh. Ravi Mohan Sharma

Supervisor Contact: 9812345678, 9912345679

For complaints and feedback

Download Swachh App  Call Supervisor  For Query Call Swachh Helpline **1969**  Go to Google Maps and rate 

Action learning for different management model



- What are the key issues and challenges
- How would you resolve these challenges
- What support would you need
- Who would do
- Non negotiable features/elements

ANNEXURE 3: DETAILED MODULE-FEACAL SLUDGE MANAGEMENT



Feacal sludge treatment Issues and Options

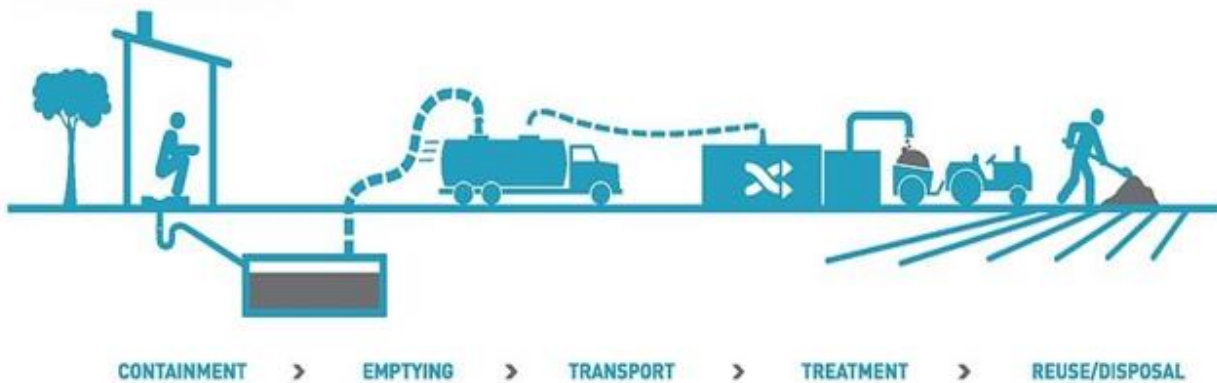
What is On-site Sanitation



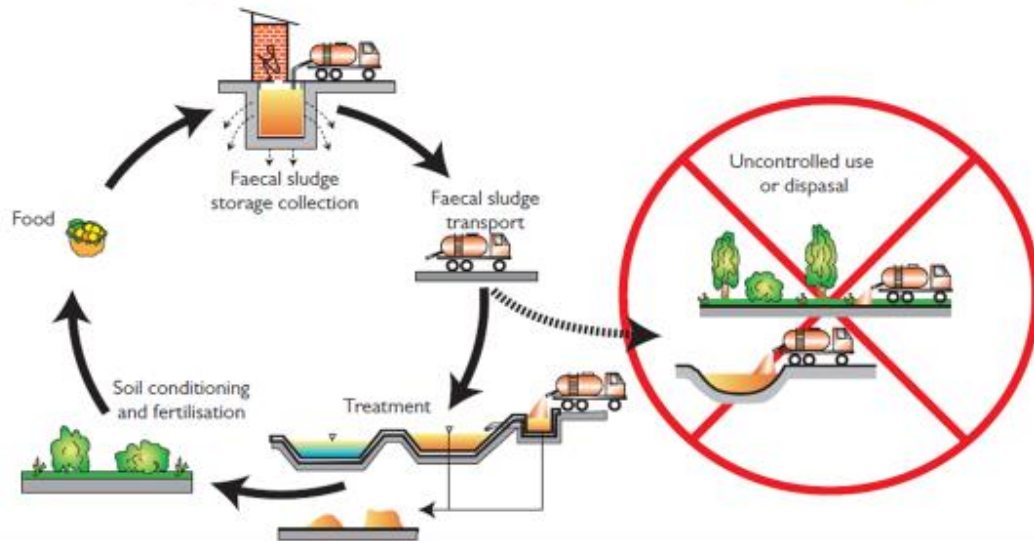
What is Faecal sludge

- ❖ Faecal sludge - all liquid and semi-liquid contents of pit/ septic tanks accumulating in on-site sanitations installations
- ❖ unsewered public and private toilets with pits and septic tanks
- ❖ These liquids are several times more concentrated in suspended and dissolved solids than wastewater

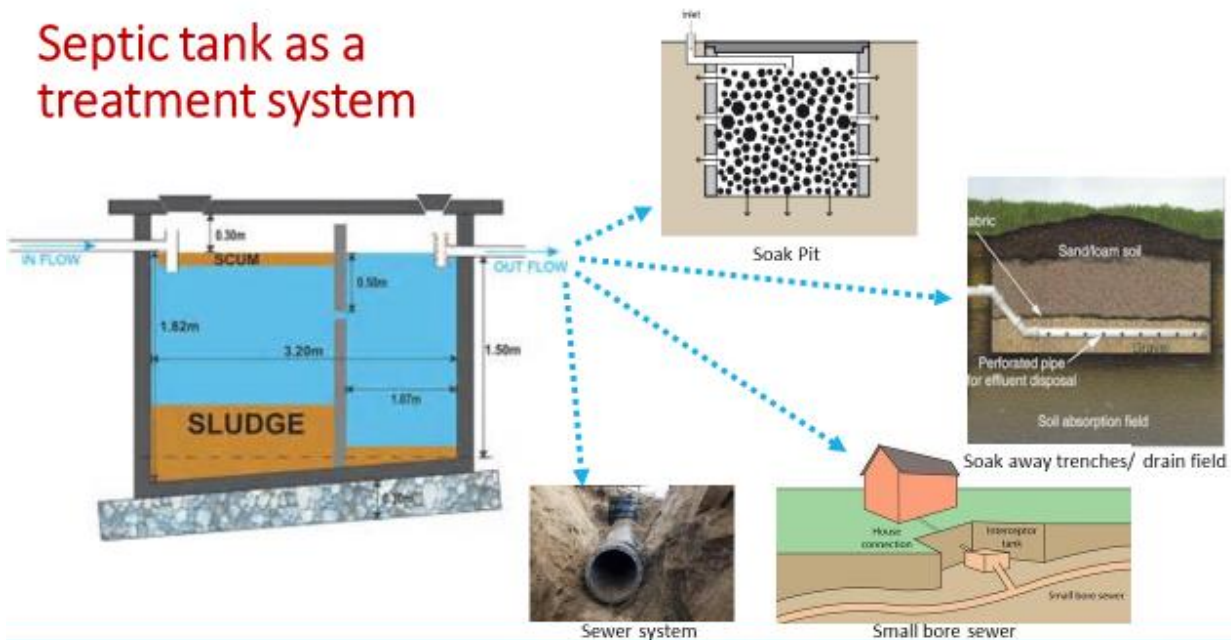
Faecal sludge Management – The System



Faecal sludge treatment for on-site sanitation systems



Septic tank as a treatment system

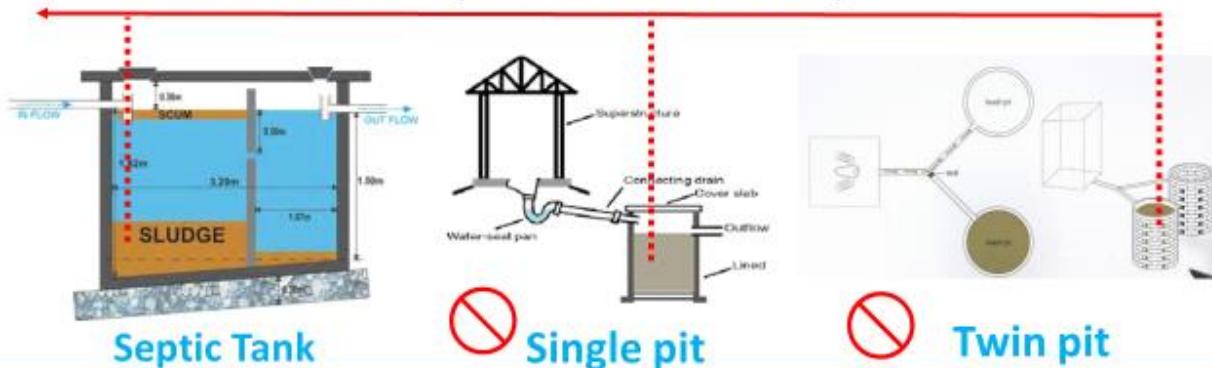


Recommended size of septic tank

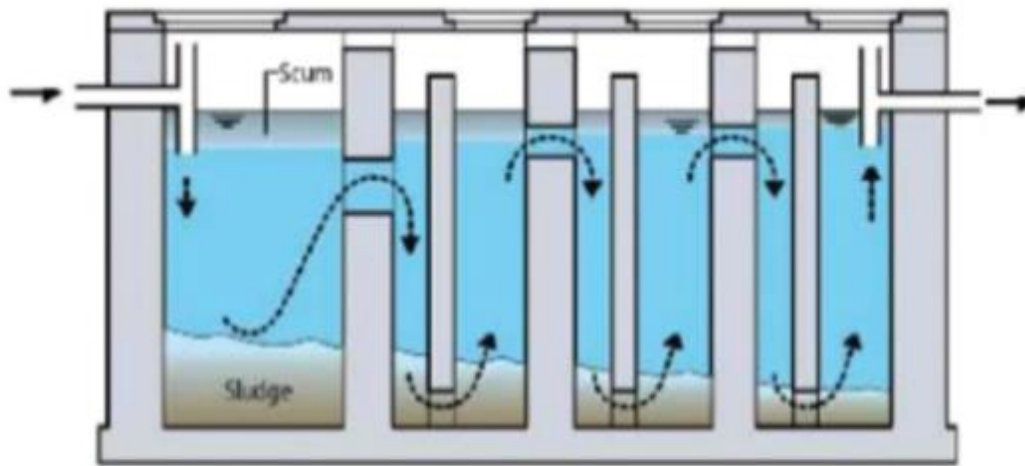
No. of users	Length (m)	Breadth (m)	Liquid depth in m (Cleaning interval of septic tanks)	
			2 years	3 years
50	5.0	2.00	1.00	1.24
100	7.5	2.65	1.00	1.24
150	10.0	3.00	1.00	1.24
200	12.0	3.30	1.00	1.24
300	15.0	4.00	1.00	1.24

Desludging operations for on-site sanitation systems

Desludging – is a process to remove sludge from the pits/septic tanks so that the sanitation system functions effectively



Improved septic tank – baffled reactor



Faecal sludge Management – Challenges

- ❖ Can impact both Water Supply and Sanitation
- ❖ Low awareness about need and importance of emptying on site systems periodically
- ❖ Manual handling during different stages of the system – violating laws
- ❖ Low technological advancement or penetration
- ❖ Operational challenges – narrow/ difficult to reach lanes
- ❖ Responsibilities not clear
- ❖ Considered as low dignity job, even specific to a particular community

Faecal sludge Management – Challenges

- ❖ No exclusive FSTPs
- ❖ Limited knowledge
- ❖ Role of the toilet operators is not clear
- ❖ Scheduled desludging services not implemented
- ❖ Difficult to implement the scheduled desludging services
- ❖ Locational issues
- ❖ Inadequate infrastructure

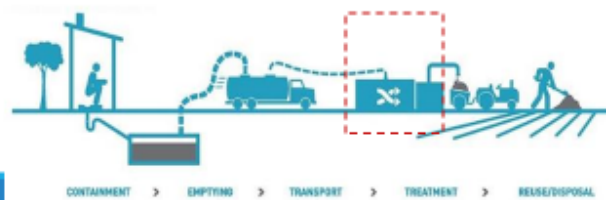




Faecal sludge treatment plants for on-site sanitation systems – O & M

Operation: all activities that are required to ensure that a FSTP delivers treatment services as designed

Maintenance: all activities that ensure long-term operation of equipment and infrastructure

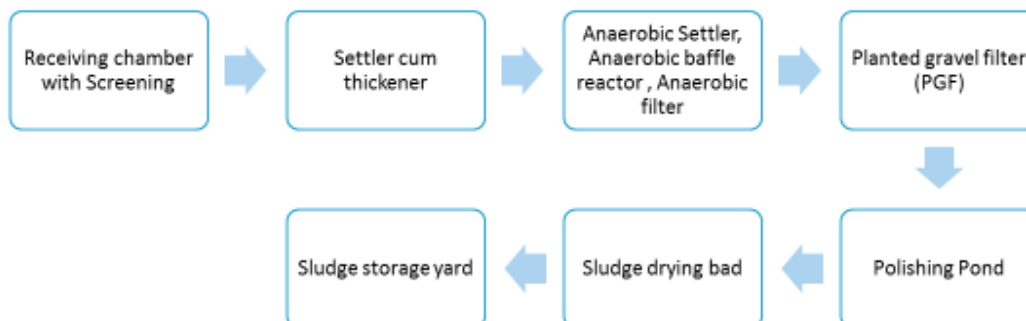


De-sludging operations for on-site sanitation systems

De-sludging required frequently depending on number of users and topography, type toilets and size of the septic tank

On site sanitation system	Frequency of emptying
Septic tank	<ul style="list-style-type: none">• 3-4 years if designed and used as recommended• Else 12 month or more once depending on users

Complete treatment Process



Options for fecal Sludge management

- Explore possibility to connect these facilities with the nearby sewage network
- Pit Emptier Vehicle with a long pipe y
- Emptying on regular frequency
- Dispose fecal sludge in nearby manhole (after checking feasibility and with prior permission)
- Dispose fecal sludge in the nearby pumping station
- Dispose fecal sludge in the nearby Sewage treatment Plants



Tank lorry emptying vehicle – with long hose



Mini Vacuum tug for narrow lanes



Intermediate storage tanks


Operations and maintenance of faecal sludge treatment plants for on-site sanitation systems

Standard operating processes


RECORD KEEPING

- The operators log book
- Treatment unit operating data sheet
- Records related to FS deliveries to the plant
- Disaster response and emergency recovery records
- Preventative and corrective maintenance records including equipment maintenance log books
- Compliance reports including field and analytical data, and correspondence from regulatory officials
- Employee records, such as employee schedules, time sheets and injury reports

HEALTH AND SAFETY

- ❖ Personal protective equipment
 - ❖ Safety measures for O&M activities
 - ❖ Infection control and hygiene measures
 - ❖ Emergency contact procedures
 - ❖ Protection against falling and drowning hazards
 - ❖ Confined space entry protection
 - ❖ Electrical safety
- 

ADMINISTRATIVE MANAGEMENT

- Financial procedures
 - Human resource management
 - Staffing, roles and responsibilities
 - Operators and their role
- 

Action learning – FSM



- Key Challenges you face (Stakeholder wise)
- Possible solutions
- Support needed

Road map development



1. What 3 action would you take to improve the existing problems
2. How would you do it



THANK YOU